

DETAILED ACTION

This action is in response to the amendment filed on 12/19/2007 and the response filed on 5/19/2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leheureau et al (4025784) in view of Tanaka et al (US 6608809) and further in view of Hayashi (US 2004/0136291)

Regarding claim 1, Leheureau '784 discloses a method of focus control, comprising: passing a light source beam over a reflectivity change of a storage media and on to a leading photo sensor (5, fig. 3 and fig. 10) and a trailing photo sensor (4, fig. 3 and fig. 10); determining whether the leading photo sensor or the trailing photo sensor had a first change in reflectivity (figs. 4 and 5); if the leading sensor experienced the first change in reflectivity, then adjusting a focus actuator to move a focus lens farther from the storage media (fig. 5 and col. 3 lines 25-32); and if the trailing sensor experienced the first change in reflectivity, then adjusting the focus actuator to move the focus lens closer to the storage media (fig. 4 and col. 3 lines 16-24). Leheureau discloses that the reflectivity change is from an area of more reflectivity to an area of less reflectivity but fails to disclose wherein the reflectivity change is from reflective to non-reflective areas. In the same field of endeavor, Tanaka discloses a method of detecting marks on

a disc wherein the disc has a reflectivity change from reflective to non-reflective (Boundary area, fig. 3 and col. 5 lines 41-45). It would have been obvious to one of ordinary skill in the art to modify the method disclosed by Leheureau by providing a disc with reflective and non-reflective areas as taught by Tanaka. The rationale is as follows: It would have been obvious to provide for non-reflective instead of the less-reflective areas of Leheureau as it would have been a simple substitution of one known element for another to obtain predictable results.

Further regarding claim 1, Leheureau in view of Tanaka fail to disclose wherein the light source is passed toward a label side of a storage media also having a data side opposite to the label side, and wherein the focus actuator moves the lens to focus on a label side of the media. In the same field of endeavor, Hayashi discloses providing a mark on a label face of an optical medium, which has a data side (recording surface, figs. 2b, 2c) opposite to the label side (label side, fig. 2c) , and wherein a focus actuator moves the lens to focus on the label side of the media (par. 49 and fig. 2c). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the reflectivity change taught in Leheureau in view of Tanaka on a label face of a media as in Hayashi. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide a label face with the reflectivity change marks in order to allow a user to label and identify discs that are created by the user.

Regarding claim 2, Leheureau '784 discloses a method further comprising: if the trailing sensor and the leading sensor experienced a change in reflectivity at substantially the same time, then leaving the focus lens in a current location (figs. 1 and 6 and col. 1 lines 16-22).

Claims 3-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lehureau et al (US 4025784) in view of Tanaka et al (US 6608809) and Hayashi (US 2004/0136291) as applied to claims 1 and 2 above and further in view of Lehureau (US 2004/0027964).

Regarding claim 3, Lehureau '784 fails to disclose wherein the storage media is selected from the group consisting of compact discs and digital versatile discs. In the same field of endeavor, Lehureau '964 discloses a similar focusing device used for a CD (pars. 4 and 9). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device disclosed by Lehureau '784 by using it with a CD or DVD as taught by Lehureau '964. The rationale is as follows: One of ordinary skill in the art would have been motivated to use the focusing device for a CD or DVD in order to use a disc with greater storage capacity (see '964, par. 2)

Regarding claim 4, Lehureau '964 further discloses wherein the storage media is a removable storage media (pars. 4 and 9).

Regarding claims 6-8, Lehureau '784 fails to disclose wherein: the leading photo sensor comprises a first pair of photo sensors from a quadrature photo sensor; and the trailing photo sensor comprises a second pair of photo sensors from the quadrature photo sensor. In the same field of endeavor, Lehureau '784 discloses a quadrature photodetector for focusing, wherein a first pair and a second pair are leading and lagging detectors (fig. 12 and par. 61). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device disclosed by Lehureau '784 with the quad-photodetector disclosed by Lehureau '964. The rationale is as follows: One of ordinary skill in the art would have been motivated to provide a quad-photodetector in order to allow for calculation of a push-pull tracking error

signal as well as a focusing error signal with the same detector ('964, par. 61).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lehureau (US 4025784) in view of Tanaka et al (US 6608809)) and Hayashi (US 2004/0136291) as applied to claims 1 and 2 above and further in view of Freeman (US 6901598).

Regarding claim 5, Lehureau fails to disclose wherein the optical disc is a non-removable disc. In the same field of endeavor, Freeman discloses wherein an optical disc used in a focus mechanism can be either removable or non-removable (col. 1 lines 26-32). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device disclosed by Lehureau to use with a non-removable disc. The rationale is as follows: One of ordinary skill in the art would have been motivated to use a non-removable disc in order to prevent corruption or damage to a disc used for data storage.

Response to Arguments

Applicant presented a statement showing that the previous rejection's use of the McClellan reference (US 2004/0160510) because it was commonly owned and does not qualify for a 35 U.S.C. 103 rejection under 103 (c). The previous rejection including the McClellan reference has been withdrawn.

Conclusion

Applicant's amendment to the claims filed on 12/19/2007 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAWFIK GOMA whose telephone number is (571)272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 2627

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/
Supervisory Patent Examiner, Art Unit
2627

/Tawfik Goma/
Examiner, Art Unit 2627